

REMARKS

The pending Office Action addresses and rejects claims 1, 3, 4, 6-9, 12, 14-16, 18, 20-22, and 26. Reconsideration is respectfully requested in view of the following remarks.

Claim Rejections Pursuant to 35 U.S.C. §102(e)

The Examiner rejects claims 1, 3, 4, 6-9, 12, 14-16, 18, 20-22, and 26 pursuant to 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,551,316 of Rinner et al. ("Rinner"), arguing that Rinner discloses the claimed invention. Applicants disagree with the Examiner's rejection.

Independent claims 1, 16, 22, and 26 each recite a surgical instrument having a locking mechanism at the receiving component. Rinner does not teach or even suggest such a device. To the contrary, as shown in Figures 1 and 13 of Rinner, the locking mechanism (76 and 77) is located on the end (71) of the modular tip (13), not on the receiving component (68 and 69).

Rinner also fails to teach or even suggest a locking mechanism that engages an outer surface of the mating component, as further required by claims 1, 16, and 22. As shown in Figures 12 and 13 of Rinner, the locking mechanism consists of a spring (77) and a round pin (76) mounted in a bore formed in the end (71) of the modular tip (13). When the locking mechanism is activated, the round pin (76) extends into a round hole (74) in the jaw assembly end (68). Thus, since the locking mechanism of Rinner is located in a bore in the mating component, i.e., the modular tip, it does not engage any outer surface of the mating component.

Moreover, claims 1, 16, 22, and 26 further require that the locking mechanism engage at least two surfaces. As explained above, Rinner's locking mechanism (76 and 77) is disposed in a round bore. The rounded nature of the bore constitutes only one continuous surface, not two or more distinct surfaces as required by claims 1, 16, 22, and 26.

Independent claim 16 further requires that the coupling between the mating and receiving components be such that relative movement between the components is prevented when a force is applied to the coupling in a direction substantially parallel to the longitudinal axis, even when the locking mechanism is not engaged. Rinner fails to teach or even suggest a coupling having such an

arrangement. The Examiner argues that in Rinner the friction between the mating component (71) and the interior of the receiving component cavity (69) is sufficient to prevent relative movement between the two components along the longitudinal axis. Friction alone, however, can only *resist* such relative movement; it is insufficient to *prevent* it, as required by claim 16. Any time a force sufficient to overcome this frictional resistance in Rinner is present, relative movement cannot be prevented at the Rinner coupling. This is in stark contrast with the requirements of claim 16, which provides for a coupling that completely prevents relative movement as a result of a similar force.

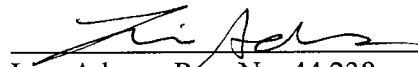
Accordingly, independent claims 1, 16, 22, and 26 distinguish over Rinner and represent allowable subject matter. Claims 2-4, 6-9, 12, 14, 15, 17, 18, 20, and 21 are allowable at least because they depend from an allowable base claim.

Conclusion

Accordingly, all claims are now in condition for allowance, and allowance thereof is respectfully requested. The Examiner is encouraged to telephone the undersigned attorney for Applicants if such communication is deemed to expedite prosecution of this application.

Respectfully submitted,

Date: June 8, 2007



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PENDING CLAIMS

1. (Previously Presented) A surgical instrument comprising:
a receiving component having a longitudinal axis and defining a cavity;
a modular tip that includes a mating component, the mating component configured to be coupled in a rigid manner to the receiving component in two or less orientations; and
a locking mechanism at the receiving component for securing the tip to the receiving component, the locking mechanism extending through the cavity, and slideably moveable to and from a locked position, wherein the locking mechanism engages at least two outer surfaces of the mating component.
2. (Original) The surgical instrument of Claim 1, wherein the tip includes a mating component configured to be coupled to the receiving component by insertion of the mating component into the receiving component in a direction substantially perpendicular to the longitudinal axis of the receiving component, or by rotating the mating component relative to the receiving component, or a combination thereof.
3. (Previously Presented) The surgical instrument of Claim 1, wherein the mating component is configured to be coupled to the receiving component to form a coupling such that the coupling, without the engagement of the locking mechanism to the surfaces of the mating component, can prevent relative movement between the mating component and the receiving component when a force is applied to the coupling in a direction substantially parallel to the longitudinal axis.
4. (Previously Presented) The surgical instrument of Claim 1, wherein the mating component has at least three planar surfaces configured to engage at least three planar surfaces of the receiving component.
5. (Withdrawn) The surgical instrument of Claim 1, wherein the tip includes a mating component having a conical surface configured to engage a conical surface of the receiving component.

6. (Previously Presented) The surgical instrument of Claim 1, wherein surfaces of the mating component that engage the locking mechanism are planar.
7. (Previously Presented) The surgical instrument of Claim 6, wherein surfaces of the locking mechanism that engage the mating component are planar.
8. (Original) The surgical instrument of Claim 7, further comprising a spring for resiliently biasing the locking mechanism in a locked position.
9. (Previously Presented) The surgical instrument of Claim 1, wherein the locking mechanism includes a first member and a second member being moveable within the cavity of the receiving component, each member having a surface that engages, in a locked position, at least one of the surfaces of the mating component.
10. (Withdrawn) The surgical instrument of Claim 1, wherein the locking mechanism includes a collar slideable along the longitudinal axis of the receiving component between a locked position and an unlocked position.
11. (Withdrawn) The surgical instrument of Claim 1, wherein the locking mechanism includes a collar rotatable about the receiving component between a locked position and an unlocked position.
12. (Previously Presented) The surgical instrument of Claim 1, wherein the receiving component includes a recess and an opening that form a connecting member in the receiving component, the connecting member being configured to cooperatively engage a recess in the mating component.
13. (Withdrawn) The surgical instrument of Claim 1, wherein the tip includes a mating component configured to be coupled to the receiving component, further comprising a rod configured to cooperatively engage a semi-circular recess in the mating component.
14. (Original) The surgical instrument of Claim 1, wherein the instrument is configured to be used in the compression or distraction of objects.
15. (Original) The surgical instrument of Claim 1, wherein the receiving component is provided at an end of a handle.

16. (Previously Presented) A surgical instrument comprising:
a receiving component having a longitudinal axis and defining a cavity;
a modular tip including a mating component configured to be coupled in a rigid manner to the receiving component;
a locking mechanism at the receiving component for securing the mating component to the receiving component, the locking mechanism extending through the cavity, and slideably moveable to and from a locked position, wherein the locking mechanism engages at least two outer surfaces of the mating component; and
the mating component being coupled to the receiving component to form a coupling such that the coupling, without the engagement of the locking mechanism to the mating component, can prevent relative movement between the mating component and the receiving component when a force is applied to the coupling in a direction substantially parallel to the longitudinal axis.
17. (Original) The surgical instrument of Claim 16, wherein the mating component is configured to be coupled to the receiving component by insertion of the mating component into the receiving component in a direction substantially perpendicular to the longitudinal axis of the receiving component, or by rotating the mating component relative to the receiving component, or a combination thereof.
18. (Previously Presented) The surgical instrument of Claim 16, wherein surfaces of the mating component that engage the locking mechanism are planar.
19. (Withdrawn) The surgical instrument of Claim 18, wherein the planar surfaces are tapered.
20. (Previously Presented) The surgical instrument of Claim 18, wherein surfaces of the locking mechanism that engage the mating component are planar.
21. (Original) The surgical instrument of Claim 16, wherein the receiving component includes a recess and an opening that form a connecting member in the receiving component, the connecting member being configured to cooperatively engage a recess in the mating component.

22. (Previously Presented) An attachment mechanism for a device, comprising:
a modular tip that includes a mating component;
a receiving component defining a cavity, the receiving component configured to be coupled in a rigid manner to the mating component in two or less orientations; and
a locking mechanism at the receiving component for securing the mating component to the receiving component, the locking mechanism extending through the cavity, and slideably moveable to and from a locked position, wherein the locking mechanism engages at least two outer surfaces of the mating component.
23. (Withdrawn) The attachment mechanism of Claim 22, wherein the locking mechanism includes a collar slideable along, or rotatable about, the receiving component.
- 24-25. (Cancelled).
26. (Previously Presented) A surgical instrument comprising:
a receiving component having a longitudinal axis and defining a cavity;
a modular tip that includes a mating component, the mating component configured to be coupled in a rigid manner to the receiving component in two or less orientations;
a locking mechanism at the receiving component for securing the tip to the receiving component, the locking mechanism extending through the cavity, and slideably moveable to and from a locked position, wherein the locking mechanism engages at least two surfaces of the mating component; and
a spring for resiliently biasing the locking mechanism in a locked position.